Contents of Aquaculture, Volume 163

VOL. 163 NOS. 1, 2	April 1998
Diseases, parasites and predators	
Species of Vibrio isolated from hepatopancreas, haemolymph and digestive tract of a population healthy juvenile Penaeus vannamei	n of
B. Gomez-Gil, L. Tron-Mayén, A. Roque (Mazatlán, Mexico), J.F. Turnbull, V. Inglis (Stirl UK) and A.L. Guerra-Flores (Mazatlán, Mexico)	
Husbandry and Management	
Experimental studies on polyculture in closed shrimp ponds. I. Intensive polyculture of Chinese shr (<i>Penaeus chinensis</i>) with tilapia hybrids	imp
JQ. Wang, D. Li, S. Dong, K. Wang and X. Tian (Qingdao, China)	11
I.M. Davies, P.A. Gillibrand (Aberdeen, UK), J.G. McHenery (Edinburgh, UK) and G.H. (Perth, UK)	
Transplant experiments on growth and mortality of the fan mussel Pinna bicolor	
R.S.S. Wu and P.K.S. Shin (Kowloon, China)	47
J. Frances (Taylors Beach, NSW, Launceston, TAS, Australia), G.L. Allan (Taylors Beach, NS Australia) and B.F. Nowak (Launceston, TAS, Australia)	
Feeding time, feed intake and growth of baltic salmon, Salmo salar, and brown trout, Salmo true reared in monoculture and duoculture at constant low temperature	utta,
M. Jobling (Tromsø, Norway), J. Koskela and J. Pirhonen (Valkola, Finland)	
K.K. Schrader, M.Q. De Regt, P.D. Tidwell, C.S. Tucker and S.O. Duke (Stoneville, MS, USA) Growth of <i>Penaeus vannamei</i> on soils from various Texas shrimp farms, under laboratory conditi G. Ritvo, T.M. Samocha, A.L. Lawrence (Port Aransas, TX, USA) and W.H. Neill (Coll	ons
Station, TX, USA)	101
I.S. Racotta, J.L. Ramirez, S. Avila and A.M. Ibarra (La Paz, Mexico)	111
Nutrition	
In vitro digestibility of dietary protein sources for white shrimp (<i>Penaeus vannamei</i>) J.M. Ezquerra, F.L. García-Carreño (La Paz, México) and O. Carrillo (La Habana, Cuba)	123
Dietary arginine requirement of fingerling coho salmon (<i>Oncorhynchus kisutch</i>) U. Luzzana (Milano, Italy), R.W. Hardy (ildaho, ID, USA) and J.E. Halver (Seattle, WA, USA)	
, and the country that the country and the country that t	

Physiology and Endocrinology	
Induction of out-of-season spawning in walleye (Stizostedion vitreum)	
J.A. Malison, L.S. Procarione (Madison, WI, USA), T.B. Kayes, J.F. Hansen (Lincoln, NE, USA)	
and J.A. Held (Madison, WI, USA)	15
Determination of semen quality of the rainbow trout, Oncorhynchus mykiss, by sperm motility, seminal	
plasma parameters, and spermatozoal metabolism	
F. Lahnsteiner (Salzburg, Austria), B. Berger (Thalheim, Austria), T. Weismann (Mondsee,	100
Austria) and R.A. Patzner (Salzburg, Austria)	163
Announcement	183
VOL. 163 NOS. 3, 4	1 1998
Diseases, parasites and predators	
Effects of infectious pancreatic necrosis virus (IPNV) on appetite and growth in Atlantic salmon,	
Salmo salar L.	
B. Damsgård, A. Mortensen and AI. Sommer (Tromsø, Norway)	185
Husbandry and Management	
A comparison of methods for tagging juvenile lobsters (Homarus gammarus L.) reared for stock	
enhancement	
A. Linnane (County Galway, Galway, Ireland) and J.P. Mercer (County Galway, Ireland)	195
Nutrition	
Comparison of vitamin C requirement for maximum growth of grass shrimp, Penaeus monodon, with	
L-ascorbyl-2-monophosphate-Na and L-ascorbyl-2-monophosphate-Mg	
TS. Hsu and SY. Shiau (Keelung, Taiwan).	203
A preliminary model for dynamic simulation of growth in fish larvae: application to the African catfish	
(Clarias gariepinus) and turbot (Scophthalmus maximus)	
L.E.C. Conceição, J.A.J. Verreth, M.W.A. Verstegen and E.A. Huisman (Wageningen, Nether-	
lands)	215
Lipid and fatty acid composition of normal and malpigmented Atlantic halibut (Hippoglossus hip-	
poglossus) fed enriched Artemia: a comparison with fry fed wild copepods	
L.A. McEvoy (Stirling, UK), T. Naess (Storeboe, Norway), J.G. Bell (Stirling, UK) and Ø. Lie	
(Bergen, Norway)	237
The effects of dietary fatty acids on the fatty acid composition of the harpacticoid copepod, <i>Tisbe</i> sp.,	
for use as a live food for marine fish larvae	
D.A. Nanton and J.D. Castell (Halifax, N.S., Canada)	251
High dietary inclusion level of fresh herring impairs growth of rainbow trout, Oncorhynchus mykiss	242
K. Ruohonen (Jyväskylä, Finland), J. Vielma (Valkola, Finland) and D.J. Grove (Anglesey, UK)	263
Growth and food utilisation of rainbow trout (Oncorhynchus mykiss) fed low-fat herring and dry diets	
enriched with fish oil	275
K. Ruohonen (Jyväskylä, Finland), J. Vielma (Valkola, Finland) and D.J. Grove (Anglesey, UK)	275
Effect of three feeding strategies (automatic, ad libitum demand-feeding and time-restricted demand-	
feeding) on feeding rhythms and growth in European sea bass (<i>Dicentrarchus labrax</i> L.)	205
M. Azzaydi, J.A. Madrid, S. Zamora, F.J. Sánchez-Vázquez and F.J. Martínez (Murcia, Spain)	285
Effects of supplemental lysine and methionine in low protein diets on weight gain and body	
composition of young channel catfish Ictalurus punctatus	207
M.H. Li and E.H. Robinson (Stoneville, MS, USA)	297
hynchus mykiss)	
J. Vielma (Valkola, Finland), S.P. Lall (Halifax, N.S., Canada), J. Koskela (Valkola, Finland), FJ.	
J. Vielma (Valkola, Finland), S.P. Lall (Halliax, N.S., Canada), J. Koskela (Valkola, Finland), FJ. Schöner (Offenbach, Germany) and P. Mattila (Helsinki, Finland)	300

Incorporation of high levels of extruded lupin in diets for rainbow trout (<i>Oncorhynchus mykiss</i>): nutritional value and effect on thyroid status	
C. Burel, T. Boujard, G. Corraze, S.J. Kaushik (Saint Pée-sur-Nivelle, France), G. Boeuf (Plouzané,	
France), K.A. Mol, S. Van Der Geyten and E.R. Kühn (Leuven, Belgium)	325
Interactions between salinity, dietary carbohydrate source and carbohydrate concentration on the	
digestibility of macronutrients and energy in rainbow trout (Oncorhynchus mykiss)	
T. Storebakken (Sunndalsøra, Norway), K.D. Shearer (Seattle, WA, USA), S. Refstie (Sunndalsøra,	
Norway), S. Lagocki (Devon, UK) and J. McCool (Wolverhampton, UK)	347
Contents of Aquaculture, Volume 163	361